

COLLEGE of
CHARLESTON

SCHOOL OF SCIENCES & MATHEMATICS



Strategic Plan

2016-2021



Strategic Planning at the College of Charleston

The College of Charleston's future will be driven by an unwavering commitment to our faculty, students, staff, and the structures—physical, curricular, and financial—that will foster their success.

Strategic Planning is a systematic process, one that builds commitment to priorities essential to mission-critical work. Strategic planning establishes the guideposts that chart the journey toward excellence and provides opportunities to assess the steps along the way. Strategic planning also helps ensure that the university remains vital, sustainable, and accountable.

All strategic planning at the College of Charleston is founded in the overarching principles of the institution's mission, core purpose, and values.

Mission Statement

The College of Charleston is a state-supported comprehensive institution providing a high quality education in the arts and sciences, education and business. The faculty is an important source of knowledge and expertise for the community, state, and nation.

Consistent with its heritage since its founding in 1770, the College retains a strong liberal arts undergraduate curriculum. Located in the heart of historic Charleston, it strives to meet the growing educational demands primarily of the Lowcountry and the state and, secondarily, of the Southeast. A superior undergraduate program is central to the mission of the College of Charleston. As a prominent component of the state's higher education system, the College encourages and supports research.

In addition to offering a broad range of baccalaureate degree programs, the College incorporates the University of Charleston, South Carolina (UCSC), established by state statute in 1992, which serves as a research institution where the graduate and research programs associated with the College are housed. UCSC provides master's degree programs and anticipates offering a limited number of doctoral degrees should location and need warrant. The College also provides an extensive credit and non-credit continuing education program and cultural activities for residents of the Lowcountry of South Carolina.

The College of Charleston seeks applicants capable of successfully completing degree requirements and pays particular attention to identifying and admitting students who excel academically. The College of Charleston serves a diverse student body from its geographic area and also attracts students from national and international communities. The College provides students a community in which to engage in original inquiry and creative expression in an atmosphere of intellectual freedom. This community, founded on the principles of the liberal arts tradition, provides students the opportunity to realize their intellectual and personal potential and to become responsible, productive members of society.

Core Purpose

To pursue and share knowledge through study, inquiry and creation in order to empower the individual and enrich society.

Values

- **Academic excellence** that furthers intellectual, creative, ethical and social development through a broad range of programs centered on the liberal arts and sciences.
- **Student-focused community** that embraces mutual respect, collaboration and diversity for the welfare of the individual and the institution.
- **The history, traditions, culture and environment of Charleston and the Lowcountry** that foster distinctive opportunities for innovative academic programs and relationships that advance our public mission in the city of Charleston, the state of South Carolina and the world.

School of Sciences & Mathematics

Mission

Our mission of the School of Sciences & Mathematics (SSM) is to integrate discovery, innovation and education in order to serve our students, our state and our nation. The principal responsibility of the School of Sciences and Mathematics is to provide the science and mathematics courses for all students at the College, and, concomitantly, to equip students who major in sciences and/or mathematics with the knowledge and skills to pursue careers in a wide variety of fields, including, science, engineering, medicine and allied health, law, social services, and journalism. The school's graduate programs have been carefully selected both to complement the undergraduate programs in areas of significant national strength and to meet the intellectual, professional and economic needs of the region and the state.

SSM Vision

Our vision is to be a community of teacher-scholars committed to creating an environment of distinctiveness and excellence that supports and nurtures students as scholars and encourages learning through inquiry, all within the framework of a broad liberal arts and sciences education.

SSM Values

Our vision and our mission are founded on our core values -- those principles that define and guide the way in which we achieve our mission. The School of Sciences and Mathematics reflects the values of a public liberal arts and sciences university. We value:

- Students as individuals
- Our colleagues and peers as teachers and scholars
- Commitment to responsible and ethical practices in research and pedagogy
- Inquiry and intellectual curiosity
- Meaningful engagement with the community, region and state
- Collaborative effort and lifelong learning
- Diversity and dialogue
- Assessment and accountability as key tools to drive continuous improvement

SSM Goals

The School of Sciences & Mathematics has a number of constituents to serve the general education student population at the College of Charleston, our undergraduate majors, our graduate student, our faculty, and our staff as well as our alumni, our neighbors in the community, and the world as a whole.

Goal 1 Role of Sciences in the College of Charleston Undergraduate Curriculum: College of Charleston undergraduates will acquire an education that will equip them with the scientific, mathematical, and statistical literacy that will be critical in order for them to be leaders in their profession, as well as informed citizens in a society that will continue to be increasingly dependent on science and technology.

Goal 2 The Undergraduate Curricula, Programs, and Experiences: SSM will be nationally recognized for the quality of our undergraduate programs. Our students will receive the most current knowledge of the subject matter and procedures in a chosen program of study and its supporting areas. They will have opportunities to collaborate with faculty, graduate students, and other undergraduates in significant research experiences. Programs for SSM majors will establish and emphasize depth of disciplinary knowledge as well as connections between and among disciplines using imaginative and creative teaching techniques that supplement traditional methods to achieve optimum student learning.

Goal 3 Graduate Programs: SSM will provide additional opportunities for graduate education in the sciences to not only serve the needs of the region, but also to enhance the undergraduate programs.

Goal 4 Faculty in the School of Sciences and Mathematics: SSM faculty will be characterized by an unquestioned commitment to teaching while simultaneously maintaining a level of research and scholarship appropriate for the mission of the institution.

Goal 5 Resources, Facilities and Technology: SSM will have the resources, facilities and technology necessary to support the goals of the School.

Goal 6 Engagement with the Community outside of the College: SSM will provide opportunities for faculty and student exchanges and collaborations with both national and international institutions. SSM will actively engage its alumni and the broader community outside of the College.

Strategic Planning

Outcome	KPI (measures)	Targets and Deadlines	Division/Unit/School Goal Supported
Improved instruction in General Education science courses	The number of roster faculty teaching in SSM General Education lectures	85% of lectures by roster faculty 2021	SSM Goal 1
Creation of an interdisciplinary sustainability Gen Ed sequence	The number of sections offered per semester	Implementation of a lab/lecture sequence by 2021	SSM Goal 1
Prepare undergraduate students for success in “doing science” after graduation	The number of students participating in high impact experiential learning	500 student enrollments per year will engage in undergraduate research, internships, or special projects by 2021	SSM Goal 2
Prepare students for success in professional schools after graduation	The number of acceptances to professional schools	150 per year by 2021	SSM Goal 2
Provide additional opportunities for graduate education	Number of on-line course offerings	Twenty sections by 2021	SSM Goal 3
Increase the number of degrees and certificates completed	Number of masters degrees/certificates conferred	100 per year by 2021	SSM Goal 3
Create a more diverse faculty	The percentage of minority faculty members	10 % by 2020	SSM Goal 4
Enhanced research capabilities	Number of dollars of external funding	\$10 million by 2021	SSM Goals 2, 3, 4, and 5
Summer study abroad and research opportunities	The number of summer or academic year experiences abroad	15 per year by 2021	SSM Goal 6
Enhanced engagement with the local community	The number of events per year The number of people reached	50 events per year by 2021 50,000 people per year by 2021	SSM Goal 6

SWOT Analysis

List the division/unit/school's strengths and weaknesses (internal forces) as well as opportunities and threats (external forces). These are intended to guide the unit's development of its strategic plan.

	Helpful (to achieving the objective)	Harmful (to achieving the objective)
Internal Origin (attributes of the organization)	<p><u>Strengths:</u></p> <ul style="list-style-type: none"> • High caliber faculty committed to teach-scholar model • New/renovated facilities • Faculty mentors for undergraduate research • Strong student interest in STEM fields 	<p><u>Weaknesses:</u></p> <ul style="list-style-type: none"> • Over-reliance on adjunct faculty • Limited support of student or faculty research • Unpredictable utilities with frequent shutdowns and outages • Bimodal distribution of student quality
External Origin (attributes of the environment)	<p><u>Opportunities:</u></p> <ul style="list-style-type: none"> • Expansion of experiential training opportunities for students • Great connectivity to private sector companies for student training and research opportunities • Expanded collaboration with neighboring institutions, particularly MUSC and Clemson 	<p><u>Threats:</u></p> <ul style="list-style-type: none"> • Program overlap and parasitism from other institutions • Space availability in partner facilities at Ft Johnson

Trade-Offs

Describe the resource allocation decisions that have to be made to accomplish the strategic actions and list opportunities that cannot be pursued or strengths that cannot be leveraged given current resource constraints.

We have been very fortunate to be able to build or renovate facilities on the historic campus, including the Science and Mathematics Building and the Rita Hollings Science Center, as well as at Dixie Plantation. We have also been able to lease significant space at Harbor Walk. Unfortunately, adequate resources are not available to construct a planned new facility at Ft Johnson. In addition, SSM has had to absorb some of the lease cost associated with Harbor Walk which may not be sustainable in the long run. CofC may also have to absorb some of the costs associated with occupying part of the Hollings Marine Laboratory in the next few years.

Support for undergraduate research will be more predictable and sustainable after school fees are implemented in Fall 2017. This will help replace funding that will disappear with terminating grants and on-campus budget cuts.

Adjunct dependence remains a great challenge within SSM, particularly at the lower-division level. Until more faculty lines are obtained, this challenge will remain. Similarly, the continued recruitment of excellent graduate students, as well as the expansion of SSM graduate programs, will require additional assistantships.

Attempts to expand exchange programs with institutions in other countries will remain challenging because of the lack of adequate support.